

Chemical Analysis Report

SE-DIST-2017-06-07-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **SMP- Dade Purple Run**
Request ID: **RQ-2017-06-05-26**
Customer: **SE-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Matthew Sewell

For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 03-JUL-2017 11:01

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

A - Value reported is the mean of two or more determinations.
B - Results based on colony counts outside the acceptable range.
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J - Estimated value and/or the analysis did not meet established quality control criteria.
K - Actual value is known to be less than value given.
L - Actual value is known to be greater than value given.
N - Presumptive evidence of presence of material.
O - Sampled, but analysis lost or not performed.
Q - Sample held beyond normal holding time.
T - Value reported is less than the criterion of detection.
U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
V - Analyte was detected in both sample and method blank.
X - Too few individuals to calculate SCI value.
Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: C-6 Miami Canal

Collection Date/Time: 06/06/2017 10:45

Field ID: G4SE0094

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904134	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P326403	
	SM 2320 B-97	Total Alkalinity	183		mg CaCO3/L	P326593	
	SM 2540 D-97	TSS	2	I	mg/L	P327028	
	SM 4500 F-C-97	Fluoride	0.41		mg F/L	P326656	
1904137	EPA 350.1 Rev. 2.0	Ammonia-N	0.34		mg N/L	P326465	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P326495	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.063		mg N/L	P326625	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P326535	
	SM 5310 B-00	Organic Carbon	8.3		mg C/L	P326561	
1904140	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.007	I	mg P/L	P326396	
1904156	EPA 8321B	Sucralose**	0.20		ug/L	P326278	MS, RPD
	USGS O-2060-01	2,4-D	0.0032		ug/L	P326401	
		Diuron	0.014		ug/L	P326401	
		Fenuron	0.054		ug/L	P326401	
		Imidacloprid	0.0054		ug/L	P326401	MS
		Bentazon	0.0074		ug/L	P326401	
		Linuron	0.0040	U	ug/L	P326401	
		Acetaminophen**	0.0080	U	ug/L	P326401	
		MCPD	0.0020	U	ug/L	P326401	
		Carbamazepine**	0.0019		ug/L	P326401	
		Triclopyr**	0.0040	U	ug/L	P326401	
		Primidone**	0.0040	U	ug/L	P326401	
		Fluridone**	0.0036		ug/L	P326401	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Waqier Creek (WC-02)

Collection Date/Time: 06/06/2017 11:10

Field ID: G4SEWC02

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904135	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P326403	
	SM 2320 B-97	Total Alkalinity	184		mg CaCO3/L	P326593	
	SM 2540 D-97	TSS	2	I	mg/L	P327028	
	SM 4500 F-C-97	Fluoride	0.37		mg F/L	P326597	
1904138	EPA 350.1 Rev. 2.0	Ammonia-N	0.30		mg N/L	P326466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.53		mg N/L	P326496	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P326520	
	EPA 365.1 Rev. 2.0	Total-P	0.088		mg P/L	P326531	
	SM 5310 B-00	Organic Carbon	2.9		mg C/L	P326561	
1904141	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.076		mg P/L	P326397	
1904157	EPA 8321B	Sucralose**	0.37		ug/L	P326278	MS, RPD
	USGS O-2060-01	2,4-D	0.0039		ug/L	P326401	

Field ID: G4SEWC02

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904157	USGS O-2060-01	Diuron	0.016		ug/L	P326401	
		Fenuron	0.0046	I	ug/L	P326401	
		Imidacloprid	0.0085		ug/L	P326401	MS
		Bentazon	0.0015	I	ug/L	P326401	
		Linuron	0.0040	U	ug/L	P326401	
		Acetaminophen**	0.046		ug/L	P326401	
		MCP	0.0020	U	ug/L	P326401	
		Carbamazepine**	0.0051		ug/L	P326401	
		Triclopyr**	0.0040	U	ug/L	P326401	
		Primidone**	0.0040	U	ug/L	P326401	
		Fluridone**	0.0024		ug/L	P326401	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Miami Canal @ S-26

Collection Date/Time: 06/06/2017 11:40

Field ID: 42009024

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904136	EPA 180.1 Rev. 2.0	Turbidity	1.2		NTU	P326403	
	SM 2320 B-97	Total Alkalinity	214		mg CaCO3/L	P326593	
	SM 2540 D-97	TSS	3	I	mg/L	P327028	
	SM 4500 F-C-97	Fluoride	0.25		mg F/L	P326597	
1904139	EPA 350.1 Rev. 2.0	Ammonia-N	0.68		mg N/L	P326466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P326496	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.026		mg N/L	P326520	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P326531	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P326561	
1904142	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326397	
1904158	EPA 8321B	Sucralose**	0.033	I	ug/L	P326278	MS, RPD
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326401	
		Diuron	0.025		ug/L	P326401	
		Fenuron	0.0040	U	ug/L	P326401	
		Imidacloprid	0.0065		ug/L	P326401	MS
		Bentazon	0.0091		ug/L	P326401	
		Linuron	0.0040	U	ug/L	P326401	
		Acetaminophen**	0.0080	U	ug/L	P326401	
		MCP	0.0020	U	ug/L	P326401	
		Carbamazepine**	4.0E-04	U	ug/L	P326401	
		Triclopyr**	0.0040	U	ug/L	P326401	
		Primidone**	0.0040	U	ug/L	P326401	
		Fluridone**	0.0070		ug/L	P326401	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: C-6 Miami Canal

Collection Date/Time: 06/06/2017 11:50

Field ID: G4SE0095

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904131	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P326403	
	EPA 300.0 Rev. 2.1	Chloride	57		mg Cl/L	P327031	
		Sulfate	3.1		mg SO4/L	P327035	
	SM 2120 B	Color (true)	37		PCU	P326390	
	SM 2320 B-97	Total Alkalinity	215		mg CaCO3/L	P326593	
	SM 2540 C-97	TDS	315		mg/L	P326795	
	SM 2540 D-97	TSS	2	I	mg/L	P327024	
	SM 4500 F-C-97	Fluoride	0.24		mg F/L	P326597	
1904132	EPA 350.1 Rev. 2.0	Ammonia-N	0.76		mg N/L	P326466	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P326496	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.024		mg N/L	P326520	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P326531	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P326561	
1904133	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P326397	
1904155	EPA 8321B	Sucralose**	0.056		ug/L	P326278	MS, RPD
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326401	
		Diuron	0.020		ug/L	P326401	
		Fenuron	0.0040	U	ug/L	P326401	
		Imidacloprid	0.0062		ug/L	P326401	MS
		Bentazon	0.0092		ug/L	P326401	
		Linuron	0.0040	U	ug/L	P326401	
		Acetaminophen**	0.0080	U	ug/L	P326401	
		MCP	0.0020	U	ug/L	P326401	
		Carbamazepine**	4.0E-04	U	ug/L	P326401	
		Triclopyr**	0.0040	U	ug/L	P326401	
		Primidone**	0.0040	U	ug/L	P326401	
		Fluridone**	0.0069		ug/L	P326401	

Sample Location: C-7 Little River

Collection Date/Time: 06/06/2017 12:30

Field ID: G4SELR10

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904159	EPA 8321B	Glyphosate**	10	U	ug/L	P326580	
		Pyraclostrobin**	0.0020	U	ug/L	P326579	
		Sucralose**	0.059		ug/L	P326278	MS, RPD
	USGS O-2060-01	2,4-D	8.0E-04	U	ug/L	P326401	
		Diuron	0.0070		ug/L	P326401	
		Fenuron	0.0040	U	ug/L	P326401	
		Imidacloprid	8.0E-04	U	ug/L	P326401	MS
		Bentazon	0.0084		ug/L	P326401	
		Linuron	0.0040	U	ug/L	P326401	
		Acetaminophen**	0.0080	U	ug/L	P326401	
		MCP	0.0021	I	ug/L	P326401	
		Carbamazepine**	5.6E-04	I	ug/L	P326401	
		Triclopyr**	0.0040	U	ug/L	P326401	

Field ID: G4SELR10

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904159	USGS O-2060-01	Primidone**	0.0040	U	ug/L	P326401	
		Fluridone**	6.4E-04	I	ug/L	P326401	
1904160	EPA 8270D	Aldrin	5.0	U	ng/L	P326488	
		Alpha-BHC	2.5	U	ng/L	P326488	
		Beta-BHC	5.0	U	ng/L	P326488	
		Delta-BHC	5.0	U	ng/L	P326488	
		Gamma-BHC	5.0	U	ng/L	P326488	
		Carbophenothion	5.0	U	ng/L	P326488	
		Chlorothalonil	2.5	U	ng/L	P326488	
		Cypermethrin	25	U	ng/L	P326488	
		DDD-p,p'	2.5	U	ng/L	P326488	
		DDE-p,p'	3.7	U	ng/L	P326488	
		DDT-p,p'	3.7	U	ng/L	P326488	
		Dieldrin	5.0	U	ng/L	P326488	
		Endosulfan I	5.0	U	ng/L	P326488	
		Endosulfan II	5.0	U	ng/L	P326488	
		Endosulfan Sulfate	2.5	U	ng/L	P326488	
		Endrin	2.5	U	ng/L	P326488	
		Endrin Aldehyde	2.5	U	ng/L	P326488	
		Heptachlor	1.9	U	ng/L	P326488	
		Heptachlor Epoxide	2.5	U	ng/L	P326488	
		Methoxychlor	5.0	U	ng/L	P326488	
		Mirex	2.5	U	ng/L	P326488	
		Permethrin	12	U	ng/L	P326488	
		Trifluralin	1.2	UJ	ng/L	P326488	CCV
		Alpha-Chlordane	1.2	U	ng/L	P326488	
		Gamma-Chlordane	1.2	U	ng/L	P326488	
		Endrin Ketone	2.5	U	ng/L	P326488	
		Dicofol	37	U	ng/L	P326488	
	EPA 8276	Chlordane**	3.1	U	ng/L	P326488	
		Toxaphene**	16	U	ng/L	P326488	
1904161	EPA 8270D	Alachlor	0.26	U	ng/L	P326502	
		Ametryn	0.34	U	ng/L	P326502	
		Atrazine	5.7		ng/L	P326502	
		Atrazine Desethyl	1.8	IJ	ng/L	P326502	MS
		Azinphos Methyl	2.3	U	ng/L	P326502	
		Bromacil	0.52	U	ng/L	P326502	
		Butylate	0.42	U	ng/L	P326502	
		Chlorpyrifos Ethyl	0.26	UJ	ng/L	P326502	MS
		Chlorpyrifos Methyl	0.10	U	ng/L	P326502	
		Demeton	2.1	U	ng/L	P326502	
		Diazinon	0.13	U	ng/L	P326502	
		Disulfoton	0.34	UJ	ng/L	P326502	MS
		EPTC	1.3	U	ng/L	P326502	
		Ethion	0.16	U	ng/L	P326502	

Field ID: G4SELR10

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1904161	EPA 8270D	Ethoprop	0.10	U	ng/L	P326502	
		Fenamiphos	0.26	U	ng/L	P326502	
		Fipronil	0.26	U	ng/L	P326502	
		Fipronil Sulfide	0.31	I	ng/L	P326502	
		Fipronil Sulfone	0.24	I	ng/L	P326502	
		Hexazinone	2.3		ng/L	P326502	
		Malathion	0.36	U	ng/L	P326502	
		Metribuzin	0.21	UJ	ng/L	P326502	LCS, MS
		Mevinphos	0.52	U	ng/L	P326502	
		Molinate	0.31	U	ng/L	P326502	
		Norflurazon	0.52	U	ng/L	P326502	
		Pendimethalin	1.6	U	ng/L	P326502	
		Phorate	0.26	U	ng/L	P326502	
		Prometon	0.94	U	ng/L	P326502	
		Prometryn	0.21	U	ng/L	P326502	
		Simazine	0.52	U	ng/L	P326502	
		Terbufos	0.10	U	ng/L	P326502	
		Terbuthylazine	0.44	U	ng/L	P326502	
		Fonofos	0.21	U	ng/L	P326502	
		Metalaxyl	0.21	U	ng/L	P326502	
		Metolachlor	0.34	I	ng/L	P326502	
		Acetochlor	0.26	U	ng/L	P326502	
		Cyanazine	0.52	UJ	ng/L	P326502	MS
		Parathion Ethyl	0.26	U	ng/L	P326502	
		Parathion Methyl	0.26	U	ng/L	P326502	

Ref. Method and Comment:

EPA 8270D: Refer to the narrative for an explanation of QC Codes.

EPA 8270D: MS accuracy for Atrazine not assessed due to high content of this parameter in the sample spiked. Refer to the narrative for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P326403

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P327031

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P327035

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326465

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326466

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326495

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326496

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326520

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326625

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326535

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326396

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270D
Batch ID: P326488

Component	Result	Code	Units
Aldrin	4.0	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	4.0	U	ng/L
Carbophenothion	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cypermethrin	20	U	ng/L
DDD-p,p'	2.0	U	ng/L
DDE-p,p'	3.0	U	ng/L
DDT-p,p'	3.0	U	ng/L
Delta-BHC	4.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	4.0	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Gamma-BHC	4.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Methoxychlor	4.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Trifluralin	1.0	U	ng/L

Reference Method: EPA 8270D
Batch ID: P326502

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.32	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.2	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.10	U	ng/L
Cyanazine	0.50	U	ng/L
Demeton	2.0	U	ng/L
Diazinon	0.12	U	ng/L
Disulfoton	0.32	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8270D
Batch ID: P326502

Component	Result	Code	Units
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L
Ethoprop	0.10	U	ng/L
Fenamiphos	0.25	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Malathion	0.35	U	ng/L
Metaxyl	0.20	U	ng/L
Metolachlor	0.25	U	ng/L
Metribuzin	0.20	U	ng/L
Mevinphos	0.50	U	ng/L
Molinate	0.30	U	ng/L
Norflurazon	0.50	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.25	U	ng/L
Pendimethalin	1.5	U	ng/L
Phorate	0.25	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Simazine	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbuthylazine	0.42	U	ng/L

Reference Method: EPA 8276
Batch ID: P326488

Component	Result	Code	Units
Chlordane	2.5	U	ng/L
Toxaphene	12	U	ng/L

Reference Method: EPA 8321B
Batch ID: P326278

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P326579

Component	Result	Code	Units
Pyraclostrobin	0.0020	U	ug/L

Reference Method: EPA 8321B
Batch ID: P326580

Component	Result	Code	Units
Glyphosate	10	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B
Batch ID: P326390

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P326593

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P326795

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327024

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P327028

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P326656

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P326561

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: USGS O-2060-01
Batch ID: P326401

Component	Result	Code	Units
2,4-D	8.0E-04	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: USGS O-2060-01
Batch ID: P326401

Component	Result	Code	Units
Diuron	8.0E-04	U	ug/L
Fenuron	0.0040	U	ug/L
Fluridone	4.0E-04	U	ug/L
Imidacloprid	8.0E-04	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327031

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	103		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326465

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326466

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	99.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326495

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	102		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326520

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326625

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	95.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326535

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	100		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326396

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	100		P	90 - 110

Reference Method: EPA 8270D
Batch ID: P326488

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	52.5	49.5	P/P	30 - 83.0
Alpha-BHC	75.8	72.8	P/P	62 - 119
Alpha-Chlordane	77.0	69.3	P/P	56 - 119
Beta-BHC	88.9	81.2	P/P	54 - 141
Carbophenothion	66.5	62.7	P/P	33 - 147
Chlorothalonil	87.9	81.7	P/P	25 - 175
Cypermethrin	85.1	102	P/P	50 - 155
DDD-p,p'	81.6	78.4	P/P	56 - 135
DDE-p,p'	76.8	72.1	P/P	48 - 120
DDT-p,p'	84.2	80.6	P/P	51 - 121
Delta-BHC	89.7	89.4	P/P	65 - 163
Dicofol	56.9	45.6	P/P	15 - 112
Dieldrin	78.2	72.7	P/P	59 - 134
Endosulfan I	80.9	79.8	P/P	65 - 142
Endosulfan II	80.9	76.6	P/P	65 - 154
Endosulfan Sulfate	79.3	74.9	P/P	65 - 136

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P326488

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Endrin	75.5	76.5	P/P	53 - 156
Endrin Aldehyde	56.9	76.4	P/P	47 - 156
Endrin Ketone	74.4	79.0	P/P	70 - 124
Gamma-BHC	84.1	79.4	P/P	64 - 142
Gamma-Chlordane	75.5	71.1	P/P	55 - 114
Heptachlor	63.7	61.6	P/P	42 - 105
Heptachlor Epoxide	76.3	70.9	P/P	67 - 120
Methoxychlor	88.2	92.0	P/P	63 - 134
Mirex	70.0	67.4	P/P	40 - 90.0
Permethrin	86.8	103	P/P	36 - 144
Trifluralin	104	90.9	P/P	40 - 170

Reference Method: EPA 8270D
Batch ID: P326502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	80.4	80.6	P/P	78 - 118
Alachlor	81.9	80.4	P/P	77 - 119
Ametryn	80.4	82.2	P/P	61 - 136
Atrazine	91.1	90.0	P/P	73 - 120
Atrazine Desethyl	95.8	88.7	P/P	16 - 122
Azinphos Methyl	105	101	P/P	69 - 186
Bromacil	84.0	83.9	P/P	40 - 125
Butylate	49.8	45.9	P/P	32 - 87.0
Chlorpyrifos Ethyl	91.3	84.6	P/P	53 - 110
Chlorpyrifos Methyl	93.4	88.8	P/P	31 - 119
Cyanazine	222	212	P/P	36 - 224
Demeton	77.9	87.9	P/P	39 - 122
Diazinon	82.2	83.7	P/P	75 - 119
Disulfoton	88.0	90.6	P/P	42 - 139
EPTC	48.6	44.3	P/P	33 - 96.0
Ethion	97.1	90.7	P/P	63 - 127
Ethoprop	81.5	76.6	P/P	65 - 107
Fenamiphos	102	98.9	P/P	64 - 137
Fipronil	87.0	85.4	P/P	60 - 126
Fipronil Sulfide	89.5	90.4	P/P	58 - 124
Fipronil Sulfone	87.5	80.8	P/P	57 - 126
Fonofos	85.2	84.7	P/P	65 - 111
Hexazinone	85.5	83.3	P/P	46 - 151
Malathion	98.9	92.8	P/P	68 - 132
Metalaxyl	86.2	83.2	P/P	51 - 132
Metolachlor	83.4	82.2	P/P	78 - 119
Metribuzin	140	122	F/P	64 - 138
Mevinphos	74.1	69.5	P/P	34 - 128
Molinate	63.2	48.0	P/P	44 - 101
Norflurazon	83.9	79.7	P/P	63 - 129
Parathion Ethyl	87.3	84.9	P/P	80 - 109
Parathion Methyl	90.0	86.1	P/P	74 - 125
Pendimethalin	85.8	84.6	P/P	48 - 134
Phorate	91.3	83.4	P/P	52 - 119
Prometon	78.0	78.8	P/P	69 - 124
Prometryn	82.7	83.8	P/P	66 - 124

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270D
Batch ID: P326502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Simazine	93.4	96.0	P/P	61 - 134
Terbufos	84.0	84.6	P/P	58 - 115
Terbutylazine	84.6	83.7	P/P	77 - 113

Reference Method: EPA 8276
Batch ID: P326488

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	95.8	97.5	P/P	44 - 118
Toxaphene	90.7	101	P/P	36 - 136

Reference Method: EPA 8321B
Batch ID: P326278

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	88.2		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P326579

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Pyraclostrobin	60.3		P	40 - 140

Reference Method: EPA 8321B
Batch ID: P326580

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Glyphosate	87.0		P	40 - 140

Reference Method: SM 2320 B-97
Batch ID: P326593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	103		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.2		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P326656

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.5		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P326561

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	92.9		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: USGS O-2060-01
Batch ID: P326401

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	94.0		P	40 - 140
Acetaminophen	50.0		P	40 - 140
Bentazon	78.6		P	40 - 140
Carbamazepine	139		P	40 - 140
Diuron	139		P	40 - 140
Fenuron	115		P	40 - 140
Fluridone	138		P	40 - 140
Imidacloprid	120		P	40 - 160
Linuron	124		P	40 - 140
MCPP	98.2		P	40 - 140
Primidone	132		P	40 - 140
Triclopyr	103		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327031

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904262	Chloride	103		P	90 - 110
1904265	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904262	Sulfate	100		P	90 - 110
1904265	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904137	Ammonia-N	97.3	96.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326466

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904352	Ammonia-N	97.9	98.9	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326495

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903895	Kjeldahl Nitrogen	94.0	95.5	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326496

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904171	Kjeldahl Nitrogen	98.1	98.1	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326520

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904139	NO2NO3-N	104	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326625

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904111	NO2NO3-N	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904084	Total-P	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904112	Total-P	96.8	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904133	O-Phosphate-P	97.0	95.9	P/P	90 - 110

Reference Method: EPA 8270D
Batch ID: P326488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904255	Aldrin	61.4	55.7	P/P	30 - 83.0
1904255	Alpha-BHC	71.0	67.5	P/P	62 - 119
1904255	Alpha-Chlordane	79.3	73.1	P/P	56 - 119
1904255	Beta-BHC	93.5	87.6	P/P	54 - 141
1904255	Carbophenothion	84.2	80.3	P/P	33 - 147
1904255	Chlorothalonil	71.6	66.3	P/P	25 - 175
1904255	Cypermethrin	93.4	122	P/P	50 - 155
1904255	DDD-p,p'	84.7	80.3	P/P	56 - 135
1904255	DDE-p,p'	79.6	65.7	P/P	48 - 120
1904255	DDT-p,p'	79.9	78.9	P/P	51 - 121
1904255	Delta-BHC	133	128	P/P	65 - 163
1904255	Dicofol	67.9	61.5	P/P	15 - 112
1904255	Dieldrin	105	95.3	P/P	59 - 134
1904255	Endosulfan I	87.6	73.3	P/P	65 - 142
1904255	Endosulfan II	87.3	79.2	P/P	65 - 154
1904255	Endosulfan Sulfate	88.8	78.0	P/P	65 - 136

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D

Batch ID: P326488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904255	Endrin	69.2	69.4	P/P	53 - 156
1904255	Endrin Aldehyde	67.6	63.9	P/P	47 - 156
1904255	Endrin Ketone	89.0	93.3	P/P	70 - 124
1904255	Gamma-BHC	93.4	82.4	P/P	64 - 142
1904255	Gamma-Chlordane	75.7	70.7	P/P	55 - 114
1904255	Heptachlor	64.5	59.4	P/P	42 - 105
1904255	Heptachlor Epoxide	82.5	81.6	P/P	67 - 120
1904255	Methoxychlor	89.9	83.4	P/P	63 - 134
1904255	Mirex	75.6	77.1	P/P	40 - 90.0
1904255	Permethrin	90.8	103	P/P	36 - 144
1904255	Trifluralin	134	118	P/P	40 - 170

Reference Method: EPA 8270D

Batch ID: P326502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904161	Acetochlor	81.1	80.3	P/P	74 - 123
1904161	Alachlor	88.6	89.7	P/P	73 - 124
1904161	Ametryn	103	101	P/P	56 - 149
1904161	Atrazine Desethyl	114	96.8	F/P	12 - 103
1904161	Azinphos Methyl	171	164	P/P	60 - 202
1904161	Bromacil	96.8	92.6	P/P	42 - 133
1904161	Butylate	17.7	22.9	P/P	10 - 85.0
1904161	Chlorpyrifos Ethyl	125	116	F/F	53 - 113
1904161	Chlorpyrifos Methyl	92.4	94.6	P/P	40 - 115
1904161	Cyanazine	315	308	F/F	22 - 210
1904161	Demeton	102	113	P/P	17 - 149
1904161	Diazinon	87.9	86.7	P/P	72 - 124
1904161	Disulfoton	135	145	P/F	43 - 139
1904161	EPTC	24.3	27.0	P/P	10 - 86.0
1904161	Ethion	92.7	95.5	P/P	65 - 131
1904161	Ethoprop	95.2	104	P/P	59 - 110
1904161	Fenamiphos	97.1	96.2	P/P	57 - 138
1904161	Fipronil	83.4	81.7	P/P	40 - 130
1904161	Fipronil Sulfide	88.6	89.9	P/P	36 - 128
1904161	Fipronil Sulfone	76.9	80.7	P/P	16 - 145
1904161	Fonofos	101	109	P/P	60 - 112
1904161	Hexazinone	89.2	94.1	P/P	69 - 142
1904161	Malathion	105	109	P/P	68 - 132
1904161	Metalaxyl	82.3	90.1	P/P	66 - 118
1904161	Metolachlor	79.6	81.7	P/P	71 - 124
1904161	Metribuzin	301	293	F/F	61 - 140
1904161	Mevinphos	68.1	76.0	P/P	38 - 130
1904161	Molinate	71.3	83.2	P/P	23 - 99.0
1904161	Norflurazon	92.5	83.9	P/P	39 - 139
1904161	Parathion Ethyl	86.9	92.1	P/P	75 - 111
1904161	Parathion Methyl	91.3	92.2	P/P	64 - 130
1904161	Pendimethalin	97.5	100	P/P	26 - 173
1904161	Phorate	104	114	P/P	43 - 127
1904161	Prometon	77.1	74.2	P/P	50 - 144
1904161	Prometryn	82.7	80.9	P/P	69 - 126
1904161	Simazine	129	122	P/P	51 - 152

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270D
Batch ID: P326502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904161	Terbufos	108	115	P/P	54 - 125
1904161	Terbutylazine	89.5	88.3	P/P	76 - 113

Reference Method: EPA 8276
Batch ID: P326488

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904160	Chlordane	84.5	93.4	P/P	44 - 118
1904160	Toxaphene	89.8	101	P/P	36 - 136

Reference Method: EPA 8321B
Batch ID: P326278

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903830	Sucralose	32.1	148	F/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P326579

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1905091	Pyraclostrobin	59.2	49.3	P/P	40 - 140

Reference Method: EPA 8321B
Batch ID: P326580

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904159	Glyphosate	102	99.2	P/P	40 - 140

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903965	Fluoride	97.4	97.9	P/P	91 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P326656

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1904221	Fluoride	99.1	99.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P326561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903968	Organic Carbon	99.4		P	85 - 115

Reference Method: USGS O-2060-01
Batch ID: P326401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903831	2,4-D	90.0	95.8	P/P	40 - 140
1903831	Acetaminophen	109	108	P/P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: USGS O-2060-01
Batch ID: P326401

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1903831	Bentazon	41.6	42.8	P/P	40 - 140
1903831	Carbamazepine	114	121	P/P	40 - 140
1903831	Diuron	102	105	P/P	40 - 140
1903831	Fenuron	80.0	78.0	P/P	40 - 140
1903831	Fluridone	100	103	P/P	40 - 140
1903831	Imidacloprid	205	204	F/F	40 - 160
1903831	Linuron	116	112	P/P	40 - 140
1903831	MCPP	73.2	76.0	P/P	40 - 140
1903831	Primidone	120	128	P/P	40 - 140
1903831	Triclopyr	76.0	74.8	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P326403

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904110	Turbidity	1.51	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327031

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904262	Chloride	1.47	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P327035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904262	Sulfate	1.23	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904137	Ammonia-N	0.415	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P326466

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904352	Ammonia-N	0.855	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326495

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903895	Kjeldahl Nitrogen	1.19	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P326496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904171	Kjeldahl Nitrogen	0.0362	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326520

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904139	NO2NO3-N	0.855	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P326625

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904111	NO2NO3-N	0.326	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326531

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904084	Total-P	0.438	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P326535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904112	Total-P	1.26	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326396

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904113	O-Phosphate-P	0.336	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P326397

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904133	O-Phosphate-P	1.14	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P326488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904255	Aldrin	9.84	Spike	P	0 - 30
1904255	Alpha-BHC	5.01	Spike	P	0 - 30
1904255	Alpha-Chlordane	8.22	Spike	P	0 - 30
1904255	Beta-BHC	6.56	Spike	P	0 - 30
1904255	Carbophenothion	4.71	Spike	P	0 - 30
1904255	Chlorothalonil	7.78	Spike	P	0 - 30
1904255	Cypermethrin	26.2	Spike	P	0 - 30
1904255	DDD-p,p'	5.24	Spike	P	0 - 30
1904255	DDE-p,p'	19.1	Spike	P	0 - 30
1904255	DDT-p,p'	1.19	Spike	P	0 - 30
1904255	Delta-BHC	4.41	Spike	P	0 - 30
1904255	Dicofol	9.90	Spike	P	0 - 30
1904255	Dieldrin	9.37	Spike	P	0 - 30
1904255	Endosulfan I	17.8	Spike	P	0 - 30
1904255	Endosulfan II	9.66	Spike	P	0 - 30
1904255	Endosulfan Sulfate	12.9	Spike	P	0 - 30
1904255	Endrin	0.349	Spike	P	0 - 30
1904255	Endrin Aldehyde	5.62	Spike	P	0 - 30
1904255	Endrin Ketone	4.72	Spike	P	0 - 30
1904255	Gamma-BHC	12.5	Spike	P	0 - 30
1904255	Gamma-Chlordane	6.76	Spike	P	0 - 30
1904255	Heptachlor	8.24	Spike	P	0 - 30
1904255	Heptachlor Epoxide	0.837	Spike	P	0 - 30
1904255	Methoxychlor	7.46	Spike	P	0 - 30
1904255	Mirex	1.95	Spike	P	0 - 30
1904255	Permethrin	12.1	Spike	P	0 - 30
1904255	Trifluralin	12.1	Spike	P	0 - 30
LFB	Aldrin	5.96	LCS	P	0 - 30
LFB	Alpha-BHC	4.06	LCS	P	0 - 30
LFB	Alpha-Chlordane	10.5	LCS	P	0 - 30
LFB	Beta-BHC	9.02	LCS	P	0 - 30
LFB	Carbophenothion	5.93	LCS	P	0 - 30
LFB	Chlorothalonil	7.25	LCS	P	0 - 30
LFB	Cypermethrin	17.9	LCS	P	0 - 30
LFB	DDD-p,p'	4.11	LCS	P	0 - 30
LFB	DDE-p,p'	6.38	LCS	P	0 - 30
LFB	DDT-p,p'	4.37	LCS	P	0 - 30
LFB	Delta-BHC	0.407	LCS	P	0 - 30
LFB	Dicofol	22.0	LCS	P	0 - 30
LFB	Dieldrin	7.33	LCS	P	0 - 30
LFB	Endosulfan I	1.33	LCS	P	0 - 30
LFB	Endosulfan II	5.41	LCS	P	0 - 30
LFB	Endosulfan Sulfate	5.68	LCS	P	0 - 30
LFB	Endrin	1.32	LCS	P	0 - 30
LFB	Endrin Aldehyde	29.1	LCS	P	0 - 30
LFB	Endrin Ketone	5.94	LCS	P	0 - 30
LFB	Gamma-BHC	5.82	LCS	P	0 - 30
LFB	Gamma-Chlordane	6.00	LCS	P	0 - 30
LFB	Heptachlor	3.44	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.30	LCS	P	0 - 30
LFB	Methoxychlor	4.16	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P326488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Mirex	3.77	LCS	P	0 - 30
LFB	Permethrin	16.9	LCS	P	0 - 30
LFB	Trifluralin	13.4	LCS	P	0 - 30

Reference Method: EPA 8270D
Batch ID: P326502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904161	Acetochlor	1.02	Spike	P	0 - 30
1904161	Alachlor	1.24	Spike	P	0 - 30
1904161	Ametryn	1.67	Spike	P	0 - 30
1904161	Atrazine	2.14	Spike	P	0 - 30
1904161	Atrazine Desethyl	14.5	Spike	P	0 - 30
1904161	Azinphos Methyl	4.34	Spike	P	0 - 30
1904161	Bromacil	4.44	Spike	P	0 - 30
1904161	Butylate	25.5	Spike	P	0 - 30
1904161	Chlorpyrifos Ethyl	7.06	Spike	P	0 - 30
1904161	Chlorpyrifos Methyl	2.29	Spike	P	0 - 30
1904161	Cyanazine	1.99	Spike	P	0 - 30
1904161	Demeton	10.5	Spike	P	0 - 30
1904161	Diazinon	1.48	Spike	P	0 - 30
1904161	Disulfoton	7.17	Spike	P	0 - 30
1904161	EPTC	10.6	Spike	P	0 - 30
1904161	Ethion	2.95	Spike	P	0 - 30
1904161	Ethoprop	8.72	Spike	P	0 - 30
1904161	Fenamiphos	1.00	Spike	P	0 - 30
1904161	Fipronil	1.99	Spike	P	0 - 30
1904161	Fipronil Sulfide	1.28	Spike	P	0 - 30
1904161	Fipronil Sulfone	4.15	Spike	P	0 - 30
1904161	Fonofos	7.52	Spike	P	0 - 30
1904161	Hexazinone	4.53	Spike	P	0 - 30
1904161	Malathion	3.52	Spike	P	0 - 30
1904161	Metalaxyl	9.06	Spike	P	0 - 30
1904161	Metolachlor	2.49	Spike	P	0 - 30
1904161	Metribuzin	2.95	Spike	P	0 - 30
1904161	Mevinphos	11.0	Spike	P	0 - 30
1904161	Molinate	15.5	Spike	P	0 - 30
1904161	Norflurazon	9.73	Spike	P	0 - 30
1904161	Parathion Ethyl	5.75	Spike	P	0 - 30
1904161	Parathion Methyl	0.965	Spike	P	0 - 30
1904161	Pendimethalin	2.76	Spike	P	0 - 30
1904161	Phorate	9.03	Spike	P	0 - 30
1904161	Prometon	3.76	Spike	P	0 - 30
1904161	Prometryn	2.19	Spike	P	0 - 30
1904161	Simazine	5.14	Spike	P	0 - 30
1904161	Terbufos	5.60	Spike	P	0 - 30
1904161	Terbuthylazine	1.42	Spike	P	0 - 30
LFB	Acetochlor	0.306	LCS	P	0 - 30
LFB	Alachlor	1.93	LCS	P	0 - 30
LFB	Ametryn	2.19	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270D
Batch ID: P326502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Atrazine	1.23	LCS	P	0 - 30
LFB	Atrazine Desethyl	7.60	LCS	P	0 - 30
LFB	Azinphos Methyl	4.08	LCS	P	0 - 30
LFB	Bromacil	0.0812	LCS	P	0 - 30
LFB	Butylate	8.30	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	7.65	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	5.03	LCS	P	0 - 30
LFB	Cyanazine	4.88	LCS	P	0 - 30
LFB	Demeton	12.1	LCS	P	0 - 30
LFB	Diazinon	1.83	LCS	P	0 - 30
LFB	Disulfoton	2.84	LCS	P	0 - 30
LFB	EPTC	9.33	LCS	P	0 - 30
LFB	Ethion	6.83	LCS	P	0 - 30
LFB	Ethoprop	6.15	LCS	P	0 - 30
LFB	Fenamiphos	3.15	LCS	P	0 - 30
LFB	Fipronil	1.85	LCS	P	0 - 30
LFB	Fipronil Sulfide	1.05	LCS	P	0 - 30
LFB	Fipronil Sulfone	7.90	LCS	P	0 - 30
LFB	Fonofos	0.530	LCS	P	0 - 30
LFB	Hexazinone	2.59	LCS	P	0 - 30
LFB	Malathion	6.41	LCS	P	0 - 30
LFB	Metaxyl	3.53	LCS	P	0 - 30
LFB	Metolachlor	1.45	LCS	P	0 - 30
LFB	Metribuzin	13.7	LCS	P	0 - 30
LFB	Mevinphos	6.43	LCS	P	0 - 30
LFB	Molinate	27.5	LCS	P	0 - 30
LFB	Norflurazon	5.08	LCS	P	0 - 30
LFB	Parathion Ethyl	2.72	LCS	P	0 - 30
LFB	Parathion Methyl	4.48	LCS	P	0 - 30
LFB	Pendimethalin	1.31	LCS	P	0 - 30
LFB	Phorate	9.08	LCS	P	0 - 30
LFB	Prometon	1.10	LCS	P	0 - 30
LFB	Prometryn	1.32	LCS	P	0 - 30
LFB	Simazine	2.79	LCS	P	0 - 30
LFB	Terbufos	0.716	LCS	P	0 - 30
LFB	Terbuthylazine	1.09	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P326488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904160	Chlordane	10.0	Spike	P	0 - 30
1904160	Toxaphene	11.6	Spike	P	0 - 30
LFB	Chlordane	1.73	LCS	P	0 - 30
LFB	Toxaphene	10.3	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P326278

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903830	Sucralose	64.8	Spike	F	0 - 30

Reference Method: EPA 8321B
Batch ID: P326579

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1905091	Pyraclostrobin	18.2	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P326580

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904159	Glyphosate	2.78	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P326390

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904082	Color (true)	1.86	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P326593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903965	Total Alkalinity	0.722	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P326795

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904052	TDS	1.89	Sample	P	0 - 10

Reference Method: SM 2540 D-97
Batch ID: P327024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904052	TSS	6.19	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P326597

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903965	Fluoride	0.495	Spike	P	0 - 3.0

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P326656

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1904221	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P326561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903968	Organic Carbon	3.10	Spike	P	0 - 20

Reference Method: USGS O-2060-01
Batch ID: P326401

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1903831	2,4-D	5.05	Spike	P	0 - 30
1903831	Acetaminophen	0.369	Spike	P	0 - 30
1903831	Bentazon	1.77	Spike	P	0 - 30
1903831	Carbamazepine	5.01	Spike	P	0 - 30
1903831	Diuron	2.25	Spike	P	0 - 30
1903831	Fenuron	2.53	Spike	P	0 - 30
1903831	Fluridone	2.35	Spike	P	0 - 30
1903831	Imidacloprid	0.471	Spike	P	0 - 30
1903831	Linuron	4.21	Spike	P	0 - 30
1903831	MCPP	3.75	Spike	P	0 - 30
1903831	Primidone	6.79	Spike	P	0 - 30
1903831	Triclopyr	1.59	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Surrogates

Lab Sample ID: 1904155
Field Sample ID: G4SE0095

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	127	P	40 - 160
USGS O-2060-01	2,4-D-d3	103	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	122	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	109	P	30 - 160
USGS O-2060-01	Diuron-d6	95.7	P	30 - 160
USGS O-2060-01	Primidone-d5	113	P	30 - 150

Lab Sample ID: 1904156
Field Sample ID: G4SE0094

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	132	P	40 - 160
USGS O-2060-01	2,4-D-d3	103	P	40 - 150

Quality Assurance Report Surrogates

Lab Sample ID: 1904156
Field Sample ID: G4SE0094

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
USGS O-2060-01	Acetaminophen-d4	119	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	111	P	30 - 160
USGS O-2060-01	Diuron-d6	98.3	P	30 - 160
USGS O-2060-01	Primidone-d5	116	P	30 - 150

Lab Sample ID: 1904157
Field Sample ID: G4SEWC02

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	152	P	40 - 160
USGS O-2060-01	2,4-D-d3	84.9	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	115	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	131	P	30 - 160
USGS O-2060-01	Diuron-d6	104	P	30 - 160
USGS O-2060-01	Primidone-d5	146	P	30 - 150

Lab Sample ID: 1904158
Field Sample ID: 42009024

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Sucralose-d6	96.0	P	40 - 160
USGS O-2060-01	2,4-D-d3	102	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	119	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	105	P	30 - 160
USGS O-2060-01	Diuron-d6	98.2	P	30 - 160
USGS O-2060-01	Primidone-d5	109	P	30 - 150

Lab Sample ID: 1904159
Field Sample ID: G4SELR10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	117	P	30 - 150
EPA 8321B	Carbamazepine-d10	97.2	P	30 - 160
EPA 8321B	Diuron-d6	116	P	30 - 160
EPA 8321B	Diuron-d6	85.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	101	P	40 - 150
EPA 8321B	Primidone-d5	107	P	30 - 150
EPA 8321B	Sucralose-d6	114	P	40 - 160
USGS O-2060-01	2,4-D-d3	91.7	P	40 - 150
USGS O-2060-01	Acetaminophen-d4	117	P	30 - 150
USGS O-2060-01	Carbamazepine-d10	97.2	P	30 - 160
USGS O-2060-01	Diuron-d6	116	P	30 - 160
USGS O-2060-01	Diuron-d6	85.1	P	30 - 160
USGS O-2060-01	Primidone-d5	107	P	30 - 150

Lab Sample ID: 1904160
Field Sample ID: G4SELR10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Decachlorobiphenyl	66.2	P	51 - 123
EPA 8270D	Tetrachloro-m-xylene	55.0	P	31 - 111
EPA 8276	Decachlorobiphenyl	62.7	P	41 - 106

Quality Assurance Report Surrogates

Lab Sample ID: 1904161
Field Sample ID: G4SELR10

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270D	Malathion-d7	111	P	62 - 132
EPA 8270D	Simazine-d10	85.7	P	72 - 127

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A76929
Included Lab Sample IDs: 1904131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	87.4	104	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A76930
Included Lab Sample IDs: 1904133, 1904140, 1904141, 1904142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	102	P/P	90 - 110
O-Phosphate-P	102	102	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A76931
Included Lab Sample IDs: 1904131, 1904134, 1904135, 1904136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: USGS O-2060-01
Run ID: A76951
Included Lab Sample IDs: 1904155, 1904156, 1904157, 1904158, 1904159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	105	115	P/P	50 - 150
2,4-D	117	105	P/P	50 - 150
Acetaminophen	102	107	P/P	60 - 150
Acetaminophen	107	108	P/P	60 - 150
Bentazon	120	122	P/P	50 - 150
Bentazon	135	120	P/P	50 - 150
Carbamazepine	110	115	P/P	60 - 150
Carbamazepine	115	112	P/P	60 - 150
Diuron	112	118	P/P	60 - 150
Diuron	118	116	P/P	60 - 150
Fenuron	100	98.8	P/P	60 - 150
Fenuron	98.8	100	P/P	60 - 150
Fluridone	127	136	P/P	60 - 160
Fluridone	136	132	P/P	60 - 160
Imidacloprid	101	109	P/P	60 - 150
Imidacloprid	109	110	P/P	60 - 150
Linuron	109	116	P/P	60 - 150
Linuron	116	112	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: USGS O-2060-01

Run ID: A76951

Included Lab Sample IDs: 1904155, 1904156, 1904157, 1904158, 1904159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
MCPP	101	96.4	P/P	50 - 150
MCPP	105	101	P/P	50 - 150
Primidone	106	114	P/P	60 - 150
Primidone	113	106	P/P	60 - 150
Triclopyr	100	102	P/P	50 - 150
Triclopyr	108	100	P/P	50 - 150

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A76961

Included Lab Sample IDs: 1904132, 1904137, 1904138, 1904139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A76981

Included Lab Sample IDs: 1904132, 1904138, 1904139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A76997

Included Lab Sample IDs: 1904132, 1904137, 1904138, 1904139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	92.9	92.4	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A77001

Included Lab Sample IDs: 1904131, 1904134, 1904135, 1904136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	105	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A77001

Included Lab Sample IDs: 1904131, 1904135, 1904136

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A77006

Included Lab Sample IDs: 1904159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Glyphosate	84.2	96.0	P/P	70 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77007

Included Lab Sample IDs: 1904138

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A77012

Included Lab Sample IDs: 1904137

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A77029

Included Lab Sample IDs: 1904134

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A77031

Included Lab Sample IDs: 1904132, 1904137, 1904139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	99.0	P/P	90 - 110
Total-P	99.0	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A77042

Included Lab Sample IDs: 1904132, 1904137, 1904138, 1904139

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.4	96.7	P/P	90 - 110
Kjeldahl Nitrogen	96.7	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A77065

Included Lab Sample IDs: 1904159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Pyraclostrobin	107	97.2	P/P	60 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A77076

Included Lab Sample IDs: 1904131

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	105	P/P	90 - 110
Sulfate	109	107	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D

Run ID: A77161

Included Lab Sample IDs: 1904160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	92.4		P	80 - 120
Alpha-BHC	99.9		P	80 - 120
Alpha-Chlordane	95.0		P	80 - 120
Beta-BHC	101		P	80 - 120
Carbophenothion	88.8		P	80 - 120
Chlorothalonil	86.0		P	80 - 120
Cypermethrin	89.2		P	80 - 120
DDD-p,p'	102		P	80 - 120
DDE-p,p'	96.3		P	80 - 120
DDT-p,p'	105		P	80 - 120
Delta-BHC	97.6		P	80 - 120
Dicofol	108		P	80 - 120
Dieldrin	94.9		P	80 - 120
Endosulfan I	93.7		P	80 - 120
Endosulfan II	96.7		P	80 - 120
Endosulfan Sulfate	84.5		P	80 - 120
Endrin	89.6		P	80 - 120
Endrin Aldehyde	85.5		P	80 - 120
Endrin Ketone	89.7		P	80 - 120
Gamma-BHC	102		P	80 - 120
Gamma-Chlordane	97.0		P	80 - 120
Heptachlor	93.7		P	80 - 120
Heptachlor Epoxide	94.9		P	80 - 120
Methoxychlor	103		P	80 - 120
Mirex	89.8		P	80 - 120
Permethrin	97.4		P	80 - 120
Trifluralin	66.9*		F	80 - 120

Reference Method: EPA 8276

Run ID: A77163

Included Lab Sample IDs: 1904160

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	104		P	80 - 120
Toxaphene	97.2		P	80 - 120

Reference Method: EPA 8321B

Run ID: A77273

Included Lab Sample IDs: 1904156, 1904157, 1904158, 1904159

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	115	88.2	P/P	60 - 160
Sucralose	85.8	115	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A77276

Included Lab Sample IDs: 1904155

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	78.8	112	P/P	60 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270D
Run ID: A77337
Included Lab Sample IDs: 1904161

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	97.5		P	80 - 120
Alachlor	100		P	80 - 120
Ametryn	96.4		P	80 - 120
Atrazine	98.8		P	80 - 120
Atrazine Desethyl	87.2		P	80 - 120
Azinphos Methyl	100		P	80 - 120
Bromacil	94.5		P	80 - 120
Butylate	101		P	80 - 120
Chlorpyrifos Ethyl	101		P	80 - 120
Chlorpyrifos Methyl	101		P	80 - 120
Cyanazine	113		P	80 - 120
Demeton	105		P	80 - 120
Diazinon	98.9		P	80 - 120
Disulfoton	95.6		P	80 - 120
EPTC	100		P	80 - 120
Ethion	97.4		P	80 - 120
Ethoprop	101		P	80 - 120
Fenamiphos	94.2		P	80 - 120
Fipronil	95.6		P	80 - 120
Fipronil Sulfide	96.5		P	80 - 120
Fipronil Sulfone	101		P	80 - 120
Fonofos	101		P	80 - 120
Hexazinone	101		P	80 - 120
Malathion	99.8		P	80 - 120
Metalaxyl	97.5		P	80 - 120
Metolachlor	103		P	80 - 120
Metribuzin	108		P	80 - 120
Mevinphos	104		P	80 - 120
Molinate	105		P	80 - 120
Norflurazon	95.4		P	80 - 120
Parathion Ethyl	96.7		P	80 - 120
Parathion Methyl	97.7		P	80 - 120
Pendimethalin	92.6		P	80 - 120
Phorate	99.4		P	80 - 120
Prometon	97.2		P	80 - 120
Prometryn	97.4		P	80 - 120
Simazine	95.4		P	80 - 120
Terbufos	99.5		P	80 - 120
Terbuthylazine	99.2		P	80 - 120

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery	LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity				1.51	

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision	MS
							SMP	
EPA 300.0 Rev. 2.1	Chloride	103		103	104		1.47	
	Sulfate	103		100	103		1.23	
EPA 350.1 Rev. 2.0	Ammonia-N	97.8		97.3	96.8			0.415
	Ammonia-N	99.1		97.9	98.9			0.855
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103		94.0	95.5			1.19
	Kjeldahl Nitrogen	102		98.1	98.1			0.0362
EPA 353.2 Rev. 2.0	NO2NO3-N	104		104	103			0.855
	NO2NO3-N	104		105	105			0.326
EPA 365.1 Rev. 2.0	Total-P	95.0		101	101			0.438
	Total-P	100		96.8	98.2			1.26
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.4						0.336
	O-Phosphate-P	100		97.0	95.9			1.14
EPA 8270D	Acetochlor	80.4	80.6	81.1	80.3	0.306		1.02
	Alachlor	81.9	80.4	88.6	89.7	1.93		1.24
	Aldrin	52.5	49.5	61.4	55.7	5.96		9.84
	Alpha-BHC	75.8	72.8	71.0	67.5	4.06		5.01
	Alpha-Chlordane	77.0	69.3	79.3	73.1	10.5		8.22
	Ametryn	80.4	82.2	103	101	2.19		1.67
	Atrazine	91.1	90.0			1.23		2.14
	Atrazine Desethyl	95.8	88.7	114	96.8	7.60		14.5
	Azinphos Methyl	105	101	171	164	4.08		4.34
	Beta-BHC	88.9	81.2	93.5	87.6	9.02		6.56
	Bromacil	84.0	83.9	96.8	92.6	0.0812		4.44
	Butylate	49.8	45.9	17.7	22.9	8.30		25.5
	Carbophenothion	66.5	62.7	84.2	80.3	5.93		4.71
	Chlorothalonil	87.9	81.7	71.6	66.3	7.25		7.78
	Chlorpyrifos Ethyl	91.3	84.6	125	116	7.65		7.06
	Chlorpyrifos Methyl	93.4	88.8	92.4	94.6	5.03		2.29
	Cyanazine	222	212	315	308	4.88		1.99
	Cypermethrin	85.1	102	93.4	122	17.9		26.2
	DDD-p,p'	81.6	78.4	84.7	80.3	4.11		5.24
	DDE-p,p'	76.8	72.1	79.6	65.7	6.38		19.1
	DDT-p,p'	84.2	80.6	79.9	78.9	4.37		1.19
	Delta-BHC	89.7	89.4	133	128	0.407		4.41
	Demeton	77.9	87.9	102	113	12.1		10.5
	Diazinon	82.2	83.7	87.9	86.7	1.83		1.48
	Dicofol	56.9	45.6	67.9	61.5	22.0		9.90
	Dieldrin	78.2	72.7	105	95.3	7.33		9.37
	Disulfoton	88.0	90.6	135	145	2.84		7.17
	Endosulfan I	80.9	79.8	87.6	73.3	1.33		17.8
	Endosulfan II	80.9	76.6	87.3	79.2	5.41		9.66
	Endosulfan Sulfate	79.3	74.9	88.8	78.0	5.68		12.9
	Endrin	75.5	76.5	69.2	69.4	1.32		0.349
	Endrin Aldehyde	56.9	76.4	67.6	63.9	29.1		5.62
	Endrin Ketone	74.4	79.0	89.0	93.3	5.94		4.72
	EPTC	48.6	44.3	24.3	27.0	9.33		10.6
	Ethion	97.1	90.7	92.7	95.5	6.83		2.95
	Ethoprop	81.5	76.6	95.2	104	6.15		8.72
	Fenamiphos	102	98.9	97.1	96.2	3.15		1.00
	Fipronil	87.0	85.4	83.4	81.7	1.85		1.99
	Fipronil Sulfide	89.5	90.4	88.6	89.9	1.05		1.28
	Fipronil Sulfone	87.5	80.8	76.9	80.7	7.90		4.15
	Fonofos	85.2	84.7	101	109	0.530		7.52
	Gamma-BHC	84.1	79.4	93.4	82.4	5.82		12.5

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						SMP	MS
EPA 8270D	Gamma-Chlordane	75.5	71.1	75.7	70.7	6.00	6.76
	Heptachlor	63.7	61.6	64.5	59.4	3.44	8.24
	Heptachlor Epoxide	76.3	70.9	82.5	81.6	7.30	0.837
	Hexazinone	85.5	83.3	89.2	94.1	2.59	4.53
	Malathion	98.9	92.8	105	109	6.41	3.52
	Metalaxyl	86.2	83.2	82.3	90.1	3.53	9.06
	Methoxychlor	88.2	92.0	89.9	83.4	4.16	7.46
	Metolachlor	83.4	82.2	79.6	81.7	1.45	2.49
	Metribuzin	140	122	301	293	13.7	2.95
	Mevinphos	74.1	69.5	68.1	76.0	6.43	11.0
	Mirex	70.0	67.4	75.6	77.1	3.77	1.95
	Molinate	63.2	48.0	71.3	83.2	27.5	15.5
	Norflurazon	83.9	79.7	92.5	83.9	5.08	9.73
	Parathion Ethyl	87.3	84.9	86.9	92.1	2.72	5.75
	Parathion Methyl	90.0	86.1	91.3	92.2	4.48	0.965
	Pendimethalin	85.8	84.6	97.5	100	1.31	2.76
	Permethrin	86.8	103	90.8	103	16.9	12.1
	Phorate	91.3	83.4	104	114	9.08	9.03
	Prometon	78.0	78.8	77.1	74.2	1.10	3.76
	Prometryn	82.7	83.8	82.7	80.9	1.32	2.19
	Simazine	93.4	96.0	129	122	2.79	5.14
	Terbufos	84.0	84.6	108	115	0.716	5.60
	Terbutylazine	84.6	83.7	89.5	88.3	1.09	1.42
	Trifluralin	104	90.9	134	118	13.4	12.1
EPA 8276	Chlordane	95.8	97.5	84.5	93.4	1.73	10.0
	Toxaphene	90.7	101	89.8	101	10.3	11.6
EPA 8321B	Glyphosate	87.0		102	99.2		2.78
	Pyraclostrobin	60.3		49.3	59.2		18.2
	Sucralose	88.2		32.1	148		64.8
SM 2120 B	Color (true)					1.86	
SM 2320 B-97	Total Alkalinity	103				0.722	
SM 2540 C-97	TDS					1.89	
SM 2540 D-97	TSS					6.19	
SM 4500 F-C-97	Fluoride	98.2		97.4	97.9		0.495
	Fluoride	96.5		99.1	99.1		0.0
SM 5310 B-00	Organic Carbon	92.9		99.4			3.10
USGS O-2060-01	2,4-D	94.0		90.0	95.8		5.05
	Acetaminophen	50.0		109	108		0.369
	Bentazon	78.6		41.6	42.8		1.77
	Carbamazepine	139		114	121		5.01
	Diuron	139		102	105		2.25
	Fenuron	115		80.0	78.0		2.53
	Fluridone	138		100	103		2.35
	Imidacloprid	120		205	204		0.471
	Linuron	124		116	112		4.21
	MCP	98.2		73.2	76.0		3.75
	Primidone	132		120	128		6.79
	Triclopyr	103		76.0	74.8		1.59

Reference Method Descriptions

Method / DoH Cert #

Description

Associated Samples

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1904131, 1904134, 1904135, 1904136
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1904131
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1904131
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1904132, 1904137, 1904138, 1904139
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1904132, 1904137, 1904138, 1904139
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1904132, 1904137, 1904138, 1904139
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1904132, 1904137, 1904138, 1904139
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1904133, 1904140, 1904141, 1904142
EPA 8270D / E31780	Organochlorine pesticides in water matrices by GC/MS-SIM	1904160
EPA 8270D / E31780	Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS	1904161
EPA 8276 / E31780	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	1904160
EPA 8321B / E31780	Glyphosate in water matrices by HPLC/MS/MS	1904159
EPA 8321B / E31780	Pyraclostrobin in water matrices by HPLC/MS/MS	1904159
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1904155, 1904156, 1904157, 1904158, 1904159
SM 2120 B / E31780	True Color measured at 450 nm	1904131
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1904131, 1904134, 1904135, 1904136
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1904131
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1904131, 1904134, 1904135, 1904136
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1904131, 1904134, 1904135, 1904136
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1904132, 1904137, 1904138, 1904139
USGS O-2060-01 / E31780	Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS	1904155, 1904156, 1904157, 1904158, 1904159
USGS O-2060-01 / E31780	Urea herbicides and other chemicals in water matrices by HPLC/MS/MS	1904155, 1904156, 1904157, 1904158, 1904159

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	06/07/2017			06/07/2017 16:15	Sima Feizi	1904131, 1904134, 1904135, 1904136
EPA 300.0 Rev. 2.1	06/07/2017			06/16/2017	Julia Storbeck	1904131
EPA 350.1 Rev. 2.0	06/07/2017			06/08/2017	Julie Michelle Frank	1904132, 1904137, 1904138, 1904139
EPA 351.2 Rev. 2.0	06/07/2017	06/09/2017	Adrian Shelby	06/13/2017	Joseph Suarez	1904132, 1904137, 1904138, 1904139
EPA 353.2 Rev. 2.0	06/07/2017			06/09/2017	Beverly Y. Sanders	1904132, 1904138, 1904139
	06/07/2017			06/12/2017	Beverly Y. Sanders	1904137
EPA 365.1 Rev. 2.0	06/07/2017	06/09/2017	Vijayalakshmi Reddy	06/12/2017	Lipi Saha	1904132, 1904137, 1904138, 1904139
EPA 365.1 Rev. 2.0 dissolved	06/07/2017			06/07/2017 15:15	Virginia P. Brown	1904133
	06/07/2017			06/07/2017 15:23	Virginia P. Brown	1904140
	06/07/2017			06/07/2017 15:24	Virginia P. Brown	1904141
	06/07/2017			06/07/2017 15:25	Virginia P. Brown	1904142
EPA 8270D	06/07/2017	06/09/2017	John Kaba	06/13/2017	Irina Carbone	1904161
	06/07/2017	06/09/2017	Rasheda Ghaffari	06/14/2017	Marek Topolski	1904160
EPA 8276	06/07/2017	06/09/2017	Rasheda Ghaffari	06/12/2017	Vandana T. Nagar	1904160
EPA 8321B	06/07/2017	06/12/2017	Mohammad Ghaffari	06/12/2017	Mohammad Ghaffari	1904159
	06/07/2017	06/13/2017	Hoor Shaik	06/13/2017	Juyoung Kim	1904159
	06/07/2017	06/15/2017	Mohammad Ghaffari	06/21/2017	Mohammad Ghaffari	1904155, 1904156, 1904157, 1904158, 1904159
SM 2120 B	06/07/2017			06/07/2017 15:04	Tanya Welborn	1904131
SM 2320 B-97	06/07/2017			06/09/2017	Dale L. Simmons	1904131, 1904134, 1904135, 1904136
SM 2540 C-97	06/07/2017			06/09/2017	Yijie Li	1904131
SM 2540 D-97	06/07/2017			06/09/2017	Yijie Li	1904131, 1904134, 1904135, 1904136
SM 4500 F-C-97	06/07/2017			06/09/2017	Dale L. Simmons	1904131, 1904135, 1904136
	06/07/2017			06/12/2017	Dale L. Simmons	1904134
SM 5310 B-00	06/07/2017			06/09/2017	Christopher Armour	1904132, 1904137, 1904138, 1904139
USGS O-2060-01	06/07/2017	06/08/2017	Hoor Shaik	06/09/2017	Mohammad Ghaffari	1904155, 1904156, 1904157, 1904158, 1904159